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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/661,430

Confirmation No.: 9475

Applicant(s): Richard D. Cummings and Ziad Kawar

Filed: 09/12/2003

TC/A.U.: 1632

Examiner: Unknown

**Title: BETA1, 4-ACETYLGALACTOSAMINYLTRANSFERASES,
NUCLEIC ACIDS AND METHODS OF USE THEREOF**

Docket No.: 7148.001

Customer No.: 30589

Mail Stop

Commissioner for Patents

P.O. Box 1450

Arlington, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

**List of Sections Forming Part of This
Information Disclosure Statement**

The following sections are being submitted for this Information Disclosure Statement:

1. ☒ Preliminary Statements
2. ☒ Form PTO-1449 (Modified)
3. ☐ Statement as to Information Not Found in Patents or Publications
4. ☐ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted

5. ☒ Copies of Listed Information Items Accompanying this Statement
6. ☒ Identification of Person(s) Making this Information Disclosure Statement

Section 1. Preliminary Statements

Applicants submit herewith patents, publications or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Section 2. Form PTO-1449 (Modified)

☒ A Completed Form PTO-1449 (Modified) is attached hereto.

Section 3. Statement as to Information Not Found in Patents or Publications (Information Not Listed in Form PTO-1449(Modified))

Section 4. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted

This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. _____, filed on _____ (date).

(complete the following, if applicable)

- ☐ This application also relies, under 35 U.S.C. 120, on the earlier filing date of prior application Serial No. _____, filed on _____ (date).

The following references were submitted to, and/or cited by, the Office in the prior application(s) and therefore, are not required to be provided in this application:

Section 5. Copies of Listed Information Items Accompanying this Statement

Legible copies of all items listed in Form PTO-1449 (Modified) accompany this information disclosure statement.

- ☐ Exception(s) to above:
- ☐ Items in prior application from which an earlier filing date is claimed for this application, as identified in Section 4.
- ☐ Cumulative patents or publications identified in Section 5.

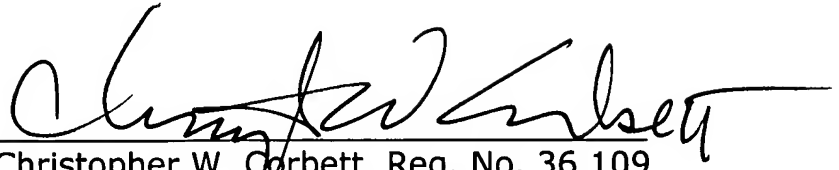
Section 6. Identification of Person(s) Making this INFORMATION DISCLOSURE STATEMENT

The person making this statement is the attorney who signs below on the basis of the information:

- ☒ supplied by the inventor(s)
- ☐ supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c)).

[] in the attorney's file

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christopher W. Corbett", written over a horizontal line.

Christopher W. Corbett, Reg. No. 36.109

DUNLAP, CODDING & ROGERS, P.C.

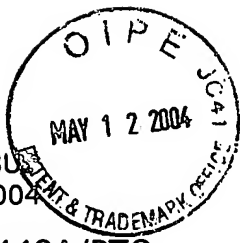
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Agent for Applicant



Express Mail: EL9845858080

Date Deposited: May 12, 2004

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete If Known	
Application Number	10/661,430
Filing Date	09/12/2003
First Named Inventor	Richard D. Cummings et al.
Group Art Unit	1632 (Conf. No. 9475)
Examiner Name	Unknown
Attorney Docket Number	7148.001

U. S. PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	U.S. PATENT NUMBER Number	Kind Code ² (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

EXAM INIT.	Cite No. 1	Foreign Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office 3 Number 4 Kind Code ⁵ (If known)				

U.S. and Foreign: ¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). ⁴Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

NON PATENT DOCUMENTS

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published

EXAM INIT.		
	1	DELL, A., ET AL., "Structural Analysis of the Oligosaccharides Derived from Glycodelin, a Human Glycoprotein with Potent Immunosuppressive and Contraceptive Activities", <i>J Biol Chem</i> 270, (1995) 24116-24126
	2	DHARMESH, S.M., ET AL., "Co-ordinate and Restricted Expression of the ProXaaArg/Lys-specific GalNAc-transferase and the GalNAc β 1, 4GlcNAc β 1, 2Man α -4-sulfotransferase", <i>J Biol Chem</i> 268, (1993) 17096-17102
	3	DO, K.Y., ET AL., " α -Lactalbumin Induces Bovine Milk β 1,4-Galactosyl-transferase to Utilize UDP-GalNAc", <i>J Biochem Biophys Methods</i> 270, (1992) 18447-18451

EXAM INIT.	NON PATENT DOCUMENTS	
	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	
4	MANZELLA, S. M., ET AL., "Oligosaccharides Containing β 1,4-Linked N-Acetylgalactosamine, a Paradigm for Protein-specific Glycosylation", <i>J Biol Chem</i> 271, (1996) 12117-12120	
5	MENGELING, B. J., ET AL., "A cluster of basic amino acids within an α -helix is essential for α -subunit recognition by the glycoprotein hormone N-acetylgalactosaminyltransferase", <i>Proc Natl Acad Sci U S A</i> 92, (1996) 502-506	
6	MORELLE, W., ET AL., "Phosphorylcholine-containing N-glycans of <i>Trichinella spiralis</i> : identification of multiantennary lacdiNAc structures", <i>Glycobiology</i> 10, (2000) 941-950	
7	NYAME, K., ET AL., "Complex-type Asparagine-linked Oligosaccharides in Glycoproteins Synthesized by <i>Schistosoma mansoni</i> Adult Males Contain Terminal β -Linked N-Acetylgalactosamine", <i>J Biol Chem</i> 264, (1989) 3235-3243	
8	NYAME, A. K., ET AL., "Mice infected with <i>Schistosoma mansoni</i> generate antibodies to LacdiNAc (GalNAc β 1 \rightarrow 4GlcNAc) determinants", <i>Glycobiology</i> 9, (1999) 1029-1035	
9	RAMAKRISHNAN, B., ET AL., "Structure-based Design of β 1,4-Galactosyltransferase I (β 4Gal-T1) with Equally Efficient N-Acetylgalactosaminyltransferase Activity", <i>J Biol Chem</i> 277, (2002) 20833-20839	
10	SAARINEN, J., ET AL., "N-Glycan structures of matrix metalloproteinase-1 derived from human fibroblasts and from HT-1080 fibrosarcoma cells", <i>Eur J Biochem</i> 259, (1999) 829-840	
11	VAN DEN NIEUWENHOF, I. M., ET AL., "Bovine mammary gland UDP-GalNAc:GlcNAc β -R β 1 \rightarrow 4-N-acetylgalactosaminyltransferase is glycoprotein hormone nonspecific and shows interaction with α -lactalbumin" <i>Glycobiology</i> 9, (1999) 115-123	
12	VAN REMOORTERE, A., ET AL., "Profiles of Immunoglobulin M (IgM) and IgG Antibodies against Defined Carbohydrate Epitopes in Sera of <i>Schistosoma</i> -Infected Individuals Determined by Surface Plasmon Resonance", <i>Infect Immun</i> 69, (2001) 2396-2401	
Non Patent Documents: ¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.		
Examiner Signature:		Date Considered:
EXAMINER: Initial if citation considered, whether or not citation is in conformance and not considered. Include copy of this form with next communication to applicant. **Place of Publication refers to name of publication in which the information was published.		

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EL 984586247 US

Date Deposited:

05/12/2004

MAY 12 2004

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for

PTO DEPOSIT ACCOUNT CHARGE

ACCOUNT #04-1700

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

DUNLAP, CODDING & ROGERS, P.C.

FEE TRANSMITTAL

for FY 2004

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

(\$ 180)

Complete if Known

Application Number	10/661,430
Filing Date	09/12/2003
First Named Inventor	Richard D. Cummings
Examiner Name	Unknown
Art Unit	1632
Attorney Docket No.	7148.001

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None
☒ Deposit Account:
 Deposit
Account
Number
Deposit
Account
Name

04-1700

Dunlap, Coddling & Rogers, P.C.
Customer No. 30589

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$ 0)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	** =	X	\$0
Multiple Dependent	** =	X	\$0

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 0)

**or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 180)

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)

Christopher W. Corbett

Registration No.
(Attorney/Agent)

36,109

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(405) 607-8600

Signature

Date

05/12/2004

 Mail Stop Patent Application
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DUNLAP, CODDING & ROGERS, P.C. U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/661,430
	Filing Date	09/12/2003
	First Named Inventor	Richard D. Cummings
	Group Art Unit	1632
	Examiner Name	Unknown
Total Number of Pages in This Submission		Attorney Docket Number 7148.001

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): See remarks below:
Remarks 1. Transmittal (1 page); 2. Fee Transmittal (1 page) authorizing the Commissioner to charge indicated fees of \$180.00 for submission of Information Disclosure Statement and any additional fee required and/or credit any overpayments to Deposit Account Dunlap, Coddling & Rogers, P.C.; 3. Information Disclosure Statement (4 pages); 4. Form PTO-1449 (2 pages); 5. Copies of cited material; and 6. Return Receipt Postcard		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	DUNLAP, CODDING & ROGERS, P.C., Customer Number 30589 P. O. Box 16370, Oklahoma City, Oklahoma 73113; Christopher W. Corbett
Signature	
Date	5/12/04

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail or U.S. Express mail no. EL 984586247 US in an envelope addressed to the address below on this date: 05/12/2004	
Typed or printed name	Christopher W. Corbett, Reg. No. 36,109
Signature	Date 5/12/04

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